millimeters of water; in adults from 150 to 680 millimetres. The normal pressure in adults is not known; in children 70 millimetres may be considered not excessive, physiologically.

The absolute height of pressure did not correspond to the gravity of the symptoms. The rapidity of the increase and the condition of the heart likewise play an important part; in case of powerful heart action even a greater pressure will not interfere greatly with the circulation in the brain. The quality of the fluid removed was usually normal; sometimes the percentage of albumen was somewhat increased, while the quantity of fluid varied in adults from 20 to 100 cubic centimetres, and in children from 2 to 66. The results are as follows: One case was cured; in two others, the results was probably due to the other measures employed; in three cases temporary improvement was observed; in four cases the operation evidently exerted no influence. The indication for lumbar puncture cannot as yet be definitely stated, though, generally speaking, the operation is indicated when the increase of pressure becomes alarming and, in case of chronic exudation, in order to bring about an alteration in the conditions of resorption. This result may be expected only in the minority of cases. Unpleasant accidents did not occur in any of Q.'s ten cases. The puncture is made in the third or fourth intercostal space of the lumbar portion of the vertebral column: in children the intercostal spaces are relatively larger. In adults the spinal processes lose their horizontal direction and assume a vertical direction, thereby increasing the difficulties of puncture. The incision is made from 5 to 10 millimetres from the median line; the needle is introduced in a slanting direction, the point reaching the region of the dura in the median line. In children the needle passes 2 centimetres deep; in adults from 4 to 6.

The canula is connected with a glass tube by means of rubber tubing in order to ascertain the exact height of pressure.—*Berlin klin. Wochenschrift*, 1891, Nos. 38 and 39.

GEORGE RYERSON FOWLER (Brooklyn).

II. Trephining for Epilepsy. By Dr. P. SODENBAUM. A young man, 19 years of age, was struck when 5 years of age by a falling tree. When 8 years of age developed vertigo and finally fits of

unconsciousness of two minutes duration. Once had a typical epileptic seizure. Operation November 18, 1890. A depression extended from a point 6.5 cm. above the left mastoid process 5.5 cm. upward. It varied in width from 5 cm. at its lower part to 3 cm. at its upper portion, and no bone could be felt. Pulsations isochronous with the heart were present. Two incisions through the soft parts were made. The piamater was œdematous; the cerebral substance was apparently sound. A few incisions were made into the latter. Healing per primam. In three days following the operation he had seven attacks of typical epilepsy, but later was free from both typical epilepsy and petit mal. He had one fit in August and one in September.—*Centralblat für Nervenheilk.*, September, 1892.

SAMUEL LLOYD (New York.)

III. The Treatment of Cicatrical Stenoses of the Œsophagus. BY DR. WILLY MEYER (New York). The author after detailing two cases, and discussing at length the various phases of the subject, submits the following conclusions:

1. After swallowing acids, etc., sounding should be begun as soon as it can be made out that the internal wounds have healed, certainly not later than two to four weeks after the accident. This prophylactic treatment has to be continued at regular intervals for a long period—if necessary, for life. Gastrostomy can be primarily performed for this purpose (Maydl, von Hacker).

2. If a stricture of the œsophagus has developed and is impermeable from the mouth, the patient should be submitted to an operation as early as possible. No forcible dilatation or boring with the sound should be permitted. If the latter is done, the formation of a false passage is favored. The œsophagus has thus often been perforated.

3. External œsophagotomy for the establishment of a temporary fistula in the neck (œsophagostomy) will be found useful and sufficient in many of these cases, especially in children. The stricture can be generally passed quite easily from this opening. A tube can be left *in situ* without the annoyances which are caused by passing it through the nose and pharynx. This operation is always indicated if, besides an impermeable stricture in the lower portion of the œsophagus or